

THREE VERIFICATIONS OF THIELE'S DATE FOR THE BEGINNING OF THE DIVIDED KINGDOM

RODGER C. YOUNG

St. Louis, Missouri

I. Overview of the Work of Thiele

Edwin Thiele's work on the chronology of the divided kingdom was first published in a 1944 article that was an abridgement of his doctoral dissertation.¹ His research later appeared in various journals and in his book *The Mysterious Numbers of the Hebrew Kings*, which went through three editions before Thiele's death in 1986.² No other chronological study dealing with the divided monarchies has found such wide acceptance among historians of the ancient Near East. The present study will show why this respect among historians is justified, particularly as regarding Thiele's dates for the northern kingdom, while touching somewhat on the reasons that later scholars had to modify Thiele's chronology for the southern kingdom. The breakthrough for Thiele's chronology was that it matched various fixed dates in Assyrian history, and also helped resolve the controversy regarding other Assyrian dates, while at the same time it was consistent with all the biblical data that Thiele used to construct the chronology of the northern kingdom—but with the caveat that this was not entirely the case in his treatment of texts for the Judean kings. Of interest for the present discussion is the observation that Thiele's dates for the northern kingdom had no substantial changes between the time of his 1944 article and the 1986 publication of the final edition of *Mysterious Numbers*.³

The initial skepticism that greeted Thiele's findings has been replaced, in many quarters, by the realization that his means of establishing the dates of these kings shows a fundamental understanding of the historical issues involved, whether regarding Assyrian or Babylonian records or the traditions of the Hebrews. Rather than trying to cover all the dates and historical data that have brought many scholars to this judgment, I shall focus on just one date that

¹Edwin R. Thiele, "The Chronology of the Kings of Judah and Israel," *JNES* 3 (1944): 137-186.

²Edwin R. Thiele, *The Mysterious Numbers of the Hebrew Kings*, 1st ed. (New York: Macmillan, 1951); 2d ed. (Grand Rapids: Eerdmans, 1965); 3d ed. (Grand Rapids: Zondervan/Kregel, 1983). Unless noted otherwise, page numbers in the present article refer to the third edition.

³In the third edition of *Mysterious Numbers*, Thiele moved the beginning date for Jehu down six months from the first half of the year beginning in Nisan of 841 B.C. to the second half of that year. In terms of the sum of years for Israel this makes no difference, because Jehu's accession was still in the same Nisan-based year. This change was made to accommodate his down-dating of the reigns of the Judean kings Jehoshaphat, Jehoram, and Ahaziah by one year in the third edition as compared to the second edition. The reason for this down-dating will be discussed below, in Section II.3.

is the result of Thiele's methodology, namely that of the beginning of the divided monarchies at the death of Solomon. This date is verified by three lines of evidence. These lines will be shown to be fundamentally independent of each other, and they all confirm that the monarchy split into two kingdoms at some time in the year that began in Nisan of 931 B.C. The three lines of evidence are the internal and external consistency of Thiele's chronology that was used to arrive at this date, the Sabbatical and Jubilee cycles, and the Tyrian king list.

II. *First Verification: Internal and External Consistency of Thiele's Chronology*

1. Consistency with Ancient Practices

Thiele's chronology is consistent with ancient practices regarding the measurement of a king's reign. The first such practice to be considered is how the partial year in which the king came to the throne was reckoned; whether it was his "accession" or "zero" year (accession counting), or whether it was to be considered the first year of reign (nonaccession counting). Both methods were used in the ancient Near East. Thiele's approach was to see if the textual data, as given by the ancient authors, were sufficient to provide the clues as to which method these authors were using for a particular king. In the case of the early northern kings, we read that Nadab of Israel began in year two of Asa of Judah and reigned two years, ending in year three of Asa. He was followed by Baasha, whose twenty-four-year reign began in Asa's year three and ended in Asa's twenty-sixth (not twenty-seventh) year. The evidence then points to nonaccession reckoning for the first northern kings. Continuing this kind of investigation, a comparison can be made between the first kings of the divided kingdom and the time when Ahaziah of Israel died in the eighteenth year of Jehoshaphat of Judah (2 Kgs 3:1). The sum of reign lengths for this time for the seven kings of Israel (ignoring Zimri's seven days) exceeds by seven years the sum for Judah, immediately suggesting that Judah, contrary to the practice of Israel, was using accession years for its kings. Thiele illustrated this with a diagram in *Mysterious Numbers*, and then wrote in explanation, "During this period Israel's totals increased by one year for every reign over the totals of Judah. This is positive evidence of the use of the accession-year system in Judah and the nonaccession-year system in Israel. When the lengths of reign of the Israelite rulers are expressed in actual [accession] rather than official [nonaccession] years, the totals of the two kingdoms are the same."⁴

Another area where Thiele's method is consistent with ancient practices is in the principle that whether a given king used accession or nonaccession reckoning was essentially an arbitrary matter. In most cases, which system to use was probably decided by the king himself. Thus the chronological data of the Scriptures show that during the time of rapprochement between the two kingdoms in the middle of the ninth century B.C., Judah adopted Israel's

⁴Ibid., 49.

nonaccession method of counting, whereas at a later time a comparison of the starting and ending years of Menahem and Pekahiah of Israel with the regnal years of Uzziah of Judah shows that Israel eventually went to accession reckoning. Thiele has been much criticized because of these changes in the method of reckoning. But Thiele is not the source of the changes and their apparent arbitrariness. The real source of the changes was the ancient kings and recorders who decided how things were to be done in their day. If someone is to be criticized for arbitrariness, it should be these ancient personalities, not Thiele. The unfairness of the criticism of Thiele's chronology because kings changed between accession and nonaccession methods can be demonstrated by an example from Assyria. The general rule in the inscriptions of Assyrian kings was to use accession reckoning. Tiglath-Pileser III, however, went against this rule and used nonaccession reckoning for his reign.⁵ Thus Assyrian inscriptions show that a change was made in the mode of reckoning for Assyria, just as the biblical texts show that changes were made in the mode of reckoning during the time of the divided kingdoms. Thiele's inferences in the matter of when accession and nonaccession counting were used were not driven by his own presuppositions (as is the case with many who write in this field), and his conclusion that changes could be made is consistent with ancient practice, as demonstrated by the example of Tiglath-Pileser III.

Another parameter that must be considered when attempting to reconstruct the chronology of the divided kingdoms is the question of coregencies. As with the accession/nonaccession question, Thiele again followed the inductive method of first determining the practices of ancient kings and their scribes, rather than starting with presuppositions of what the ancients "should have" done. In this regard, the customs of Egypt's pharaohs have been the object of considerable study. There are examples of coregencies in the Middle Kingdom, New Kingdom, and later, even down to Roman times. Egyptologists consider it essential that coregencies be taken into account when reconstructing the chronology of the various dynasties from the records of the pharaohs. The pharaohs usually measured their years from the start of a coregency, although according to at least one scholar this was not an invariable rule.⁶ In contrast, rabbinic scholars (the *Seder 'Olam* and the Talmud) considered that a king's years were always measured from the start of his sole reign. In Egypt, the fact of the coregency is sometimes quite clearly expressed in the official records, and sometimes it must be inferred by comparing other chronological data with the year of reign given in the pharaoh's inscriptions.⁷ The same practice must be followed when dealing with

⁵Hayim Tadmor, *The Inscriptions of Tiglath-Pileser III, King of Assyria* (Jerusalem: Israel Academy of Sciences and Humanities, 1994), 232, n. 3.

⁶William J. Murnane, *Ancient Egyptian Coregencies* (Chicago: Oriental Institute, 1977), 76, 82, 83, regarding the coregency of Seti I and Ramesses II.

⁷E.g., the coregency of Tuthmosis III and Amenophis II is not supported by any monuments that give corresponding dates for both monarchs, but their coregency "is strongly supported by chronological evidence from their reigns" (*ibid.*, 44).

the records from the royal courts of Judah and Israel. The coregency of Solomon with David is plainly stated in 1 Kgs 1:32-35 and 1 Chron 23:1. Second Kings 15:5 tells us that Jotham became the effective ruler when his father was stricken with leprosy. For other instances of coregencies in the Scriptures, we must infer the coregency by comparing the king's reign with other data, just as is necessary for the pharaohs of Egypt. A comparison of 2 Kgs 1:17 with 2 Kgs 3:1 suggests that Jehoram of Judah became coregent in the seventeenth year of his father Jehoshaphat. Other coregencies must sometimes be inferred by a more careful cross-checking of the data than afforded by these simple and fairly explicit references.⁸

In the past, various interpreters have either ruled out coregencies altogether in determining the chronology of the divided kingdom, or they have accepted coregencies but insisted that regnal years must always be measured in only one way, either from the start of the coregency or from the start of the sole reign. Unlike those who started with such *a priori* presuppositions, Thiele realized that the data must be allowed to tell us if a coregency was involved, and, if so, whether a given synchronism or length of reign was measured from the start of the coregency or from the start of the sole reign. It is of some interest that if this procedure is followed, there is enough information in the biblical texts to allow the construction of a coherent chronology for the

⁸ The same is true of the two periods of rival reign in the Scriptures: Omri with Tibni and Pekah with Menahem and Pekahiah. The chronology of the first of these is fairly straightforward, the second less so. The rivalry between Omri and Tibni began in the twenty-seventh year of Asa (1 Kgs 16:15, 21) and ended with Omri as sole ruler in Asa's thirty-first year (1 Kgs 16:23). The rivalry of Pekah with Menahem and Pekahiah is not so obvious, but once it is accepted as a possibility, the regnal data for the kings of Israel and Judah fall into place with an exactness that extends even to the month for Jeroboam II, Zechariah, Shallum, and Menahem. See the second edition of *Mysterious Numbers*, pp. 87-88, for the meticulous and watertight logic that allows this precision, a precision that Thiele unfortunately omitted in the third edition in his desire to simplify things. It would be very difficult to explain this precision unless the associated data were all in accord with history. A late-date editor could not have made up all these interlocking figures, because although the ancients were good at making up riddles, logic puzzles are a modern invention. Thiele's defense of Pekah's rivalry is well explained (*Mysterious Numbers*, 129-130 of 3rd ed.), but to that defense can be added the observation that the Hebrew (and LXX) text of Hos 5:5 must be read as "Both Israel and Ephraim . . .", adding to the evidence cited by Thiele that there were two rival kingdoms in the north at just this time. There is thus a dual evidence that Pekah had set up a rival kingdom: the various texts, including Hos 5:5, that imply two kingdoms in the north during the time of Menahem, and the harmony of all texts for six kings of Israel and three of Judah once it is accepted that Pekah's twenty-year reign was reckoned from the start of a rivalry with Menahem. There is no consensus of dates for this time among scholars who reject the possibility of a rivalry, and it might be asked if they would apply the same criteria and reject the inferences that Egyptologists make to demonstrate that rival pharaohs were ruling from rival capitals at various times in the history of Egypt. See my further discussion in "When Was Samaria Captured? The Need for Precision in Biblical Chronologies," *JETS* 47 (2004): 581-582, n. 11.

kingdom period. The alternative approach (ruling out coregencies, or assuming that we know beforehand when the counting of years started) invariably produces chronologies that are in contradiction with the biblical texts at some point or other. But Thiele's method of starting with observed ancient practices, and not making arbitrary decisions, allowed the construction of a chronology for the northern kingdom that is consistent not only with ancient practices, but with all the biblical texts involved.⁹

The same cannot be said for Thiele's chronology of the southern kingdom, where Thiele rejected a coregency of Ahaz and Hezekiah that explains the chronological synchronisms in 2 Kgs 18. But using the same principles that Thiele used elsewhere, scholars who built on his work, such as Siegfried Horn, T. C. Mitchell, Kenneth Kitchen, and Leslie McFall, were able to resolve the problems that Thiele had with the kingdom of Judah in the eighth century B.C.¹⁰

One other variable in determining the chronology of the divided kingdom that must be touched on briefly is the question of when the regnal year began. Here there are two viable candidates that can be gleaned from the Scriptures, rabbinic writing, and the practice of surrounding nations: either the first of Nisan in the spring or the first of Tishri in the fall. Moses was commanded to count Nisan as the first month (Exod 12:2), and it is always considered the "first month," even by those who, like the modern Jewish people, celebrate New Year's Day in Tishri, the seventh month. Also, the calendar year began in Nisan in Assyria and Babylonia. But a Tishri-based year has an equally good pedigree, besides the fact that it is observed at the present day. Josephus, the *Seder 'Olam*, and the Talmud¹¹ all refer to a Tishri-based year that was observed before the time of Moses. The Gezer Calendar (tenth century B.C.) begins with Tishri. If we are not to force our own presuppositions on ancient society, then we must consider both these options for the start of the year when investigating the chronological methods of the books of Kings and Chronicles. In this case again, Thiele let the data determine which methods were used. Thus

⁹Regarding coregencies, the evidence for their existence was quite compelling to Nadav Na'aman, a scholar who disagrees with Thiele's approach in other matters. Na'aman writes, "When we compare the list of the co-regencies of the kings of Judah and Israel, it becomes evident that the appointment of the heir to the throne as co-regent was only sporadically practised in the Northern Kingdom . . . In the kingdom of Judah, on the other hand, the nomination of a co-regent was the common procedure, beginning from David who, before his death, elevated his son Solomon to the throne. . . . When taking into account the permanent nature of the co-regency in Judah from the time of Joash, one may dare to conclude that dating the co-regencies accurately is indeed the key for solving the problems of biblical chronology in the eighth century B.C." ("Historical and Chronological Notes on the Kingdoms of Israel and Judah in the Eighth Century B.C.," *VT* 36 [1986]: 91).

¹⁰Siegfried Horn, "The Chronology of King Hezekiah's Reign," *AUSS* 2 (1964): 48-49; T. C. Mitchell and Kenneth Kitchen, *NBD* 217; Leslie McFall, "A Translation Guide to the Chronological Data in Kings and Chronicles," *BSac* 148 (1991): 33-34.

¹¹*Ant.* I. iii.3/80, *Seder 'Olam* 4; *b. Rosh Hashanah* 11b.

the data for the construction of the Temple (*Mysterious Numbers* 51-52) and the chronological data for the cleansing of the Temple in the days of Josiah (2 Chron 34:8-35:1) show that the years of these Judean kings could not have been reckoned according to a Nisan calendar, and so they must have considered the king's year to start in Tishri. The synchronisms of Shallum, Menahem, Pekahiah, and Pekah with Uzziah show that Israel's calendar was not the same as Judah's. When the assumption is made that Israel was using Nisan years, then the reign lengths and synchronisms all fall into place with an exactitude that is seen only when a precise notation is used to express the chronological data. This exactitude for all these kings has never been realized by scholars who start with presuppositions that do not let the scriptural data reveal the methods of the ancient scribes, and one of the ways their inaccuracies and disagreements with the data are hidden is by the use of an inexact notation.

2. Consistency with the Scriptural Texts for the Northern Kingdom

In all these matters, Thiele's knowledge of ancient practices and his reasoning and research were clear and convincing enough that his date for the beginning of the divided monarchy has found wide acceptance by many influential scholars. Among these are T. C. Mitchell in *CAH*,¹² Jack Finegan in his *Handbook of Biblical Chronology*,¹³ and Kenneth Kitchen in his various writings.¹⁴ Even scholars such as Gershon Galil, who do not agree with some of Thiele's other dates, nevertheless accept 931 B.C. as the date for the division of the kingdom.¹⁵ This date was determined by working back from the fixed dates of Ahab's presence at the Battle of Qarqar in 853 B.C. and Jehu's tribute to Shalmaneser III in 841 B.C. By using Israel's nonaccession counting and Nisan-based calendar, the total of years from the division of the kingdom to the Battle of Qarqar was shown to be seventy-eight years. Adding these to the 853 B.C. date of the Battle of Qarqar placed the first year of the divided monarchy as the year beginning on Nisan 1 of 931 B.C. That Thiele's method in this was based on sound principles is shown by the fact that, unknown to Thiele when he first determined these matters, V. Coucke of the Grande Seminaire de Bruges had independently, some years before, also determined that the first kings of Judah used accession years starting in Tishri, while their counterparts in Israel used nonaccession years starting in Nisan.¹⁶ The observation that these two scholars

¹²"Israel and Judah until the Revolt of Jehu (931-841 B.C.)," *CAH* 3, Part 1, 445-446.

¹³Jack Finegan, *Handbook of Biblical Chronology*, rev. ed. (Peabody, MA: Hendrickson, 1998), 249.

¹⁴E.g., NBD 219; *On the Reliability of the Old Testament* (Grand Rapids: Eerdmans, 2003), 83.

¹⁵Gershon Galil, *The Chronology of the Kings of Israel and Judah* (Leiden: Brill, 1996), 14.

¹⁶V. Coucke, "Chronique biblique" in *Supplément au Dictionnaire de la Bible*, Louis

discovered these principles independently attests to the high probability that these were the methods actually used by the ancient court recorders. Thiele further demonstrated that the chronology built on these principles was consistent with Assyrian data other than just the Battle of Qarqar, such as the records of the campaigns of Shalmaneser V. Thiele's chronology of the northern kingdom is therefore internally consistent and consistent with the scriptural texts involved, and it is externally consistent with the principles of ancient dating methods and with various synchronisms to Israel from the records of Assyria. There is still some disagreement among scholars about the closing years of the northern kingdom, particularly among those who do not recognize a rival reign for Pekah before he assassinated Pekahiah,¹⁷ but no alternative to Thiele's dates for the beginning years of the northern kingdom has found any consensus of scholarly support. Thiele's careful and reasonable scholarship in this regard (previewed, as it were, by Coucke) should be recognized as the first and most important verification for the soundness of his date for the division of the kingdom.

3. Adjustments Needed for the Southern Kingdom

But there was a fly in the ointment in the matter of Thiele's dates for the first rulers of the southern kingdom. As was mentioned above, Thiele's discovery of the methods of recording regnal years in the books of Kings and Chronicles led to the conclusion that the division of the kingdom occurred in the year that followed the first of Nisan, 931 B.C. The problem arose when Thiele, for some reason he never explained, assumed that the division of the kingdom occurred not just at sometime in that year, but in the latter half of the year. With this

Pirot ed., vol. 1 (1928), cited in Thiele, *Mysterious Numbers*, 59, n. 17.

¹⁷Another area of contention for those who disagree with Thiele's dates for the end of the northern kingdom is the tribute given by Menahem to Tiglath-Pileser III (2 Kgs 15:19-20, where Pul = Tiglath-Pileser), which Tadmor (*Inscriptions*, 268) dated to 738 B.C., about three and one-half years later than the death of Menahem according to Thiele's chronology. The inscriptions of Tiglath-Pileser at Calah listed the tribute of Menahem and other kings before describing events pertaining to 737 B.C., and this is the basis for Tadmor's dating the tribute to 738. Thiele expected that the publication of Tiglath-Pileser's "Iran Stele" would show that the tribute list from Calah was a summary list, such as Tiglath-Pileser used elsewhere (*Mysterious Numbers*, 162). Summary lists combine names of those who gave tribute in various years, and if the Calah list were a summary list, it would imply that Menahem's tribute could have been given at any time between 745 B.C. (the first year of Tiglath-Pileser) and 738. Thiele died in 1986 and Tadmor did not publish in full the extant portions of the Iran Stele until his book on Tiglath-Pileser appeared in 1994. In that publication, it was shown that the tribute list of the Iran Stele was unequivocally a summary list (Tadmor, 263). Therefore the Calah list does not necessarily imply the 738 B.C. date for Menahem's tribute. There is a fuller discussion of the significance of the Iran Stele for the date of Menahem's tribute at the end of my article "Inductive and Deductive Methods As Applied to OT Chronology," *TMSJ* 18 (2007), 113-115.

assumption, the first year of Rehoboam, according to the Judean regnal year that began in Tishri, was the year that began in Tishri of 931 B.C. But if the division of the kingdom had occurred some time between Nisan 1 and Tishri 1 of 931, then Rehoboam's official accession year would have started in Tishri of 932, not Tishri of 931. In terms of the Nisan/Tishri notation that can be used for exactness here, the two possibilities for Rehoboam's accession year are 932t and 931t, where the "t" stands for a year beginning in Tishri of the B.C. year indicated. Jeroboam's accession year, which began in Nisan according to the practice of all the northern kings, can be written as 931n.¹⁸ If Thiele had used an exact notation like this instead of the ambiguous convention of 931/30, then perhaps he would have seen the fly in the ointment earlier than he did. Sometime after the publication of the second edition of *Mysterious Numbers*, either Thiele discovered the problem or it was pointed out to him. His attempt to fix it resulted in the changes of his chronology that appeared in the third edition. Since this is a small matter of only one year, and since the problem was obscured by Thiele's lack of a precise notation, Thiele's dates will be translated into the Nisan/Tishri notation in order to demonstrate the disparity.

In all three editions of *Mysterious Numbers*, Thiele gave the beginning year for Asa as 911t. This was based on a chronology of Judah that worked down from Rehoboam's assumed accession in 931t (i.e., starting in the latter half of 931n), followed by Rehoboam's seventeen-year reign and Abijah's three-year reign. The coregency of Asa with his son Jehoshaphat was assumed to begin in Asa's thirty-ninth year, in keeping with the illness that Asa contracted in that year (2 Chron 16:12). By Judah's accession reckoning, Asa's thirty-ninth year would be 911t – 39 = 872t. Thiele, however, had calculated the beginning of Jehoshaphat's twenty-five years by reckoning upwards from the time of Ahaziah of Judah and Jehu of Israel. The latter's accession year was fixed by the tribute to Shalmaneser in 841 B.C., and the calculations working from this date indicated that Jehoshaphat began his coregency in 873t, not the 872t derived when working down from Rehoboam. The disparity was perhaps obscured by Thiele's notation (in the second edition) that the Asa/Jehoshaphat coregency began in 873/72, which the casual reader might think meant "some time in 873 or some time in 872," and so pass over what was really a one-year inconsistency. The court recorders of Israel and Judah were keeping a strict calendar, as can be shown by all the other synchronisms that work out exactly, and so it would be inconsistent if there were a one-year inaccuracy here and nowhere else.

¹⁸Leslie McFall introduced a similar exact notation in which his 931Apr is equivalent to 931n and 931Sep (931Oct would have been better) is equivalent to 931t ("Translation Guide," 3-45). It is regrettable that Thiele never adopted a more precise notation such as this. It is even more regrettable that it is still not adopted by many who write in this field. When an author writes that Jeroboam began to reign in 931/30, does this mean in the year starting on Nisan 1 of 931 B.C., or the year starting on Tishri 1 of 931? Or does it mean at some time in either 931 or 930 B.C. and the author doesn't know which year?

Thiele later became aware that his beginning year for Jehoshaphat was one year too early, as compared with the thirty-ninth year of Asa. Whenever it was that Thiele realized that there was a problem, he would have been faced with three options: (1) move the beginning of the Asa/Jehoshaphat coregency down one year to 872t, which would necessarily also place the following kings of Judah one year later; (2) abandon the idea that the coregency necessarily started in the same year as Asa's illness began;¹⁹ or (3) preserve the coincidence of the year of illness with the beginning of the coregency by moving the start of Asa's reign one year earlier, to 912t, so that his thirty-ninth year would match the beginning of Jehoshaphat's coregency as given in the first and second editions (i.e., 873t). This last option, if carried out thoroughly, would have resulted in the adjusted chronology supported in my paper on the date of Solomon's death,²⁰ which places that event in 932t, implying with it corresponding adjustments for all these first kings of Judah. It would also have meant that the court recorders of Judah and Israel recognized fully the way that regnal years were recorded in the other kingdom. In Thiele's (and McFall's) system, the court recorders recognized when the other kingdom's calendar year began, but they imposed their own choice in the accession vs. nonaccession question on the data for the other kingdom. Option (3) also would have preserved the agreement between the onset of Asa's illness and the installation of Jehoshaphat as coregent. For these reasons, Thiele would have done better to choose option (3) and move the regnal years of Asa and his predecessors back one year, rather than moving Jehoshaphat and those who followed him down one year (the first option). As it is, his solution of moving them down one year led to a conflict at the point where he stopped moving the years forward, in the reigns of Ahaziah and Athaliah. In Thiele's third edition, he wrote that Athaliah's reign ended "at some time between Nisan and Tishri of 835. . . . That gave Athaliah a reign of seven years, nonaccession-year reckoning, or six actual years."²¹ Writing this in a precise notation means that her ending year was 836t, so that her starting year was 842t. This is in conflict with Thiele's ending date of 841t for her predecessor, Ahaziah. Thiele's solution of moving the starting dates of Jehoshaphat through Athaliah one year later is therefore not acceptable. Section III below will provide another reason why the proper solution to Thiele's one-year inaccuracy for the first kings of Judah would have been to move Asa and his predecessors, including Solomon, one year earlier.

In order to accommodate his revised dates for Jehoshaphat, Jehoram, Ahaziah, and Athaliah in Judah, Thiele's third edition moved the date of the beginning of Jehu's reign six months later, thus making it consistent with his new dates for Ahaziah of Judah, who was killed by Jehu at the start of Jehu's

¹⁹This option was taken by McFall ("Translation Guide," 17-19). McFall thereby avoided Thiele's error, and his chronology for the first kings of Judah is internally consistent, unlike Thiele's attempted resolution.

²⁰Rodger C. Young, "When Did Solomon Die?" *JETS* 46 (2003): 589-603.

²¹Thiele, *Mysterious Numbers*, 104.

reign. This move, from the first half of the year starting in Nisan of 841 B.C. to the second half of that year, did not change the sum of reign lengths of the northern kingdom, because for calculation purposes Jehu still began in the same Nisan-based year. This minor change is the only modification in the years of the northern kings that Thiele made from his first publication in 1944 through the rest of his writings until his death in 1986. There are two other very minor adjustments to the dates of the northern kingdom that need to be made: the first is that if we accept the Hezekiah/Hoshea synchronisms of 2 Kgs 18 that Thiele rejected, then the synchronism of 2 Kgs 18:10 can be used to restrict the death of Hoshea to the first half of 723n rather than allowing for the full year as Thiele did.²² The second minor adjustment, already mentioned, is that Thiele was not justified in assuming that Jeroboam I began to reign in the second half of the year 931n; his reign could have begun at any time in this year. However, because of the time lapse between Solomon's death and the division of the kingdom, Thiele's date of 931n for the beginning of the divided monarchy should still be maintained.²³

It follows that Thiele's date of 931n for the start of the divided monarchy was fully justified, and it is only his placing of Solomon's death after Tishri of that year that needs to be rejected. It could even be said that the date for Jehu's accession in Thiele's first and second editions of *Mysterious Numbers* is more probable than the six-month adjustment in that date that appeared in the third edition, and hence it can be argued that there has been no reason to change any of these dates for the northern kingdom since they first appeared in Thiele's introductory article in 1944,²⁴ except for the slight refinement for the death of Hoshea to the first half of 723n and the slight "anti-refinement" for the start of Jeroboam to 931n rather than restricting it to the latter half of that year. With these very minor adjustments, the dates for the northern kings are internally consistent with themselves and with the synchronisms given to the southern kingdom. It has already been shown that Thiele's chronology is built on principles that can be demonstrated to have been operative in the ancient Near East. The work of Coucke and Thiele in applying these principles to the understanding of the biblical texts has earned the respect of many in the scholarly world, and it may safely be said that the Thiele (or Thiele/McFall) chronology of the divided kingdom has won wider acceptance than any alternative chronology for the time. The chief criticisms of Thiele's method have come from those who built their chronologies on preconceived theories, rather than on the demonstrated practices of the ancient scribes. But there is no general agreement on a chronology of the divided kingdom among those who follow this path of starting with

²²This adjustment is shown in McFall, 35.

²³Although Solomon died before Tishri of 931, it was a few weeks or months before Jeroboam returned from Egypt and the division of the kingdom occurred. We do not know whether this time crossed the Tishri 1 boundary. Consequently, we cannot determine in which half of 931n Jeroboam became king of the breakaway tribes.

²⁴Thiele, "Chronology," 184.

presuppositions, nor will any ever be achieved. The diverse presuppositions offered by these scholars necessarily produce diverse results.²⁵

III. *Second Verification: The Jubilee and Sabbatical Cycles*

1. The Dates of the Jubilees

A good portion of my own work has focused on the Sabbatical and Jubilee cycles. There are several facets to this. One facet was establishing that the Hebrew text of Ezek 40:1 implies that a Jubilee was scheduled to begin at the time Ezekiel saw the vision that occupies the last nine chapters of his book. This was the subject of my previous article in *AUSS*.²⁶ Another article, in *WTJ*, examined rabbinic traditions (*Seder 'Olam* and the Talmuds) regarding this Jubilee in the days of Ezekiel.²⁷ These traditions stated that Ezekiel's Jubilee was the seventeenth Jubilee, and they placed another Jubilee forty-nine years earlier, in the eighteenth year of Josiah. It was shown that rabbinic traditions could not have invented this date by back-calculating from Ezekiel's Jubilee because the known calculation methods of the early rabbis were incapable of correctly calculating the years from Josiah to the vision of Ezek 40–48. Both the *WTJ* article and the *AUSS* article gave extensive documentation on why the Jubilee cycle was forty-nine years, citing the second-century B.C. *Book of Jubilees* and literature from Qumran, and also establishing the forty-nine year cycle by arguments based on practical and textual matters related to the Jubilee.

The two papers determined the date of the last two Jubilees according to the Julian calendar, and then gave evidence that the times of the Jubilees were known to Israel's priests ever since the entry into Canaan. Since the Jubilee was identical to the seventh Sabbatical year, the establishment of the date of Ezekiel's vision as occurring on the tenth of Tishri²⁸ (November 2²⁹), 574 B.C.,

²⁵For a critique of the deductive method used by the majority of Thiele's critics—a method that unfortunately dominates much of biblical interpretation—see my “Inductive and Deductive” article.

²⁶Rodger C. Young, “Ezekiel 40:1 As a Corrective for Seven Wrong Ideas in Biblical Interpretation,” *AUSS* 44 (2006): 265–283.

²⁷Rodger C. Young, “The Talmud's Two Jubilees and Their Relevance to the Date of the Exodus,” *WTJ* 68 (2006): 71–83.

²⁸Jubilee and Sabbatical years began in the month of Tishri (*b. Rosh HaShanah* 1a). Ordinary Sabbatical years began on the first day of the month, but in a Jubilee year the New Year's Day (Rosh HaShanah) was on the tenth of the month (Lev 25:9–10). Ezekiel's vision was on Rosh HaShanah and also the tenth of the month (Ezek 40:1, Heb.).

²⁹My “Ezekiel 40:1 As a Corrective” paper, 271, n. 12, incorrectly adjusted this date by one day from the date that would be derived from the tables of Richard Parker and Walter Dubberstein, *Babylonian Chronology 626 B.C.–A.D. 75* (Providence: Brown University, 1956), 28. I have since learned from an astronomer that the time between the technical new moon and the first visibility of crescent is longer than I had been assuming, and so the NASA tables of new moons are basically in agreement with the

allows a complete calendar of pre-exilic Sabbatical and Jubilee cycles to be constructed. Projecting this calendar backward in time shows that the first year of the first Jubilee (and Sabbatical) cycle was the year beginning in Nisan of 1406 B.C. According to Lev 25:1-10, counting for the Jubilee cycles was to start when Israel entered Canaan, and so the Jubilee cycles establish Nisan of 1406 as the date of crossing the Jordan. The exodus, forty years earlier, was in 1446 B.C. The chronological note of 1 Kgs 6:1 states that Temple construction began 479 years after this, in the second month of the 480th year of the exodus era, which would be in the spring of 967 B.C. The same verse says that this was the fourth year of Solomon. Since Judean regnal years began in the fall, Solomon's fourth year was therefore 968t, and his fortieth and last year was 932t. This overlaps the first six months of the year 931n that Thiele established for the beginning of the divided kingdom, thereby providing another demonstration that Thiele's assumption that Solomon died in the latter half of this year, not in the first half, was not justified. As mentioned earlier, that assumption led Thiele into problems that he never resolved. It is this date, 931n, that is in exact agreement with the dates for Solomon derived from the Jubilee cycles, as long as we do not try to put Solomon's death on or after Tishri 1 of that year.

The date of the death of Solomon, as calculated from the Jubilee cycles, is thus in agreement with Thiele's determination that the year beginning in Nisan of 931 B.C. was the first year of the divided monarchy. The two methods of deriving these dates agree.

Are they independent? The method of Jubilees does not rely on any reign length, synchronism, or date as given in the Scriptures except the single date that can be derived for Ezekiel's vision, along with the associated data that help us to fix that date. Once that vision is established as occurring on the Day of Atonement, 574 B.C., the calendar of Jubilee cycles establishes that Nisan of 1406 B.C. began a Jubilee cycle. Alternately, by the reign-length method, the reign-length data of the MT that establish Solomon's fourth year as beginning in Tishri of 968, when combined with the chronological notice of 1 Kgs 6:1, give 1406 as the year of entrance into Canaan. Based on the Jubilee cycle length of forty-nine years, there is only one chance in forty-nine that 1406 B.C. would begin a Jubilee cycle, as Ezek 40:1 leads us to expect. The tradition of the Talmud and the *Seder 'Olam* that Ezekiel's Jubilee was the seventeenth Jubilee would make 1406 not just the beginning of a Jubilee cycle, but the beginning of the very first cycle, thereby providing additional evidence that counting for the Jubilee and Sabbatical years began at that time. The dates of Solomon, along with the dates of the exodus, are thus confirmed by both the method of reign lengths and the method of Jubilees. The Jubilees method does not use reign lengths, and the reign-lengths method does not use Jubilees, in establishing these dates. The two methods are independent, and they agree.

2. The Dates of Pre-exilic Sabbatical Years

During the same year when the two papers on the Jubilees were published, my two-part article on pre-exilic Sabbatical years appeared in the *Jewish Bible Quarterly*.³⁰ This dealt with the well-documented rabbinic tradition that the burning of the First Temple by the Babylonians and the burning of the Second by the Romans both happened in the "latter part" (*motsae*) of a Sabbatical year.³¹ This would imply that a Sabbatical year began in Tishri of 588, nine months before Jerusalem fell in the summer of 587 B.C. In order to determine if the tradition that 588t was a Sabbatical year is correct, this date was correlated with the mention in Scripture of activities that would normally be associated with a Sabbatical year. The first of these was the release of slaves by Zedekiah during the Babylonian siege of Jerusalem (Jer 34:8-10), for which I built on the work of William Whiston, Cyrus Gordon, and Nahum Sarna.³² Sarna's work used the chronological note of Ezek 30:20-21 and other texts to date the emancipation to Tishri of 588, which agrees with the tradition that Jerusalem fell in a Sabbatical year when we correctly place the fall of Jerusalem in 587 B.C. The second activity associated with a Sabbatical year was the reading of the Law to the people in the eighteenth year of Josiah (2 Kgs 23:1-2), an activity that was commanded for a Sabbatical year in Deut 31:10-11. The eighteenth year of Josiah was 623t, which was thirty-five years, or five Sabbatical cycles, before the Sabbatical year 588t, so 623t was also a Sabbatical year.

Second Chronicles 17:7-9 relates another instance of the public reading of the Law. Jehoshaphat, in the third year of his reign, commissioned various officers, Levites, and priests to read the Torah in all the towns of Judah. The only two synchronisms given to Jehoshaphat's reign, in 1 Kgs 22:51 and 2 Kgs

³⁰Rodger C. Young, "Seder Olam and the Sabbaticals Associated with the Two Destructions of Jerusalem," *JBQ* 34 (2006); Part I: 173-179; Part II: 252-259. In order to keep the discussion simple, no attempt was made in this two-part article to relate the Sabbatical years to the Jubilee. The timing of the pre-exilic Sabbatical years can be determined independently of their timing based on the Jubilees, but the two methods agree on the timing of the Sabbatical years.

³¹*Seder 'Olam* 30; *t. Ta 'anit* 3:9; *y. Ta 'anit* 4:5; *b. 'Arakin* 11b; *b. 'Arakin* 12a; *b. Ta 'anit* 29a. As discussed in my "Seder Olam and the Sabbaticals" article, Part I, some translations of these passages into English mistranslate the passage to say that the burning of the Temples occurred in the year after a Sabbatical year.

³²William Whiston, "Dissertation V, Upon the Chronology of Josephus," *Josephus: Complete Works*, trans. Wm. Whiston (Grand Rapids: Kregel, 1964), 703; Cyrus Gordon, "Sabbatical Cycle or Seasonal Pattern?" *Or* 22 (1953): 81; Nahum Sarna, "Zedekiah's Emancipation of Slaves and the Sabbatical Year," *Orient and Occident: Essays Presented to Cyrus H. Gordon on the Occasion of His Sixty-fifth Birthday*, ed. Harry Hoffner Jr. (Neukirchen: Butzon & Bercker Kevelaer, 1973), 144-145. Although the original intention of the law for the release of slaves was that it was to be done after six years of service as measured from when the service started (Deut 15:12), in later years it became customary to associate the release with a Sabbatical year, a custom that Sarna, 148, demonstrates by citing the *Targum of Pseudo-Jonathan*.

3:1, measure the years from the start of his sole reign, and so his third year in 2 Chron 17:7-9 should probably be measured in the same way, rather than from the start of his coregency with Asa. In keeping with the regnal years for Jehoshaphat,³³ Jehoshaphat's sole reign began in 871t and his third year was 868t. According to the calendar of pre-exilic Jubilee and Sabbatical years, this was not only a Sabbatical year; it was also the eleventh Jubilee.³⁴ Jehoshaphat's action is in keeping with one of the purposes of the Sabbatical year. Field work was forbidden (the ground was to lie fallow), but other kinds of work and activity were allowed, unlike the weekly Sabbath, when no laborious work was to be done. Freed from labor in the fields, the Israelite who was obeying the Law could have devoted his time to improving his home, developing some art or craft, or study, and here the study of the Law of God would surely take preeminence, even as came to be the case for the Sabbath day. Consistent with this, Deut 31:10-13 ordains that at the very onset of a Sabbatical year, in the Feast of Tabernacles, the Law was to be read to everyone, thereby giving an example of one of the activities that the people could profitably undertake during the year when they were freed from ordinary agricultural pursuits. Determining that Jehoshaphat's third year was a Sabbatical year therefore helps us to understand the motivation behind the king's commissioning of teaching teams for the cities of Judah. It shows that the command in the book of Deuteronomy to expound the Law in a Sabbatical year was known and respected as the Word of God in the time of Jehoshaphat.³⁵ It also suggests that the timing of the Sabbatical years, when this teaching was to be done, was known. Further, this offers another demonstration in support of 871t as the beginning of Jehoshaphat's sole reign, instead of the chronology of Thiele and McFall that places Jehoshaphat's reign one year later, which was ruled out above on other grounds. Finally and most importantly, the fact that this year fits the calendar of Sabbatical and Jubilee years that can be constructed from the start of counting in 1406 B.C. is one more evidence that Israel really did enter the land in that year, with the book of Leviticus in its possession. Although various individual activities that were part of the Sabbatical and Jubilee years (such as the forgiving of a debt or the release of a slave) are

³³Advocated in Section II.3 above, and in Young, "Solomon."

³⁴Interestingly, Ferdinand Hitzig maintained that the year that Jehoshaphat sent forth the teachers of the Law would have been a Jubilee year (*Geschichte des Volkes Israel* [Leipzig: S. Hirzel, 1869], 1:9 and 198-199). Hitzig's opinion is cited approvingly by Otto Zöckler in Lange's *Commentary on the Holy Scriptures* (Grand Rapids: Zondervan, 1960), commentary on 2 Chron 17:7.

³⁵Similar references to events that presuppose Israel's possession of the Mosaic legislation are found in all the historical books of the OT, as far back as the book of Joshua. In Josh 8:34, the book of the Torah is named explicitly, as in the present passage (2 Chron 17:9). Marvelous indeed are the convolutions of those whose presuppositions rule out the Mosaic authorship of the Pentateuch, and who therefore must find some way to assign these passages to the cleverness of a late-date deuteronomist or his ephemeral daughters (dtr1, dtr2, . . .).

known in the ancient Near East, it is only in the book of Leviticus that we find any credible candidate for the legislation that instituted these activities on a nationwide and repeating basis.

Although either of these two activities (the release of slaves or the reading of the Law) could have come about, due to special circumstances, in a non-Sabbatical year, yet the fourth instance of activities associated with a Sabbatical year, that of Isa 37:30 and its parallel passage in 2 Kgs 19:29, refers to an activity that would never have been performed except in a Sabbatical year. That activity was the voluntary foregoing of sowing and reaping for a full year. In Isaiah's prophecy, the Assyrians had destroyed the crops of the first year, and the defeat and departure of the Assyrian army came too late in the year for planting. Nevertheless, the people were enjoined not to plant in the next year, which would have no explanation unless that year were a scheduled Sabbatical year. Although the reference here is more definitely to a Sabbatical year than in the other three cases, yet the year involved is more difficult to determine, largely because of the perennial problem of whether there were one or two invasions of Sennacherib. By the one-invasion theory, the Assyrians would have invaded in early 701 B.C., and the siege would have lasted until after planting time in 701 B.C., i.e., into 701t by Judah's calendar. This would imply that 700t, the second year of Isaiah's prophecy, would be a Sabbatical year, and indeed this was the case, since 700t is sixteen Sabbatical cycles before the Sabbatical associated with the fall of Jerusalem in 588t. Most theories advocating a second invasion allow that the second invasion could have been in either 688 or 687 B.C. Since 686t was a Sabbatical year, this favors putting the second invasion in the spring of 687, with the defeat of the Assyrians occurring sometime after the fall planting of that (Julian) year. It is unfortunate that the Sabbatical years do not allow us to make a clear choice between the one-invasion and two-invasion theories, but they do indicate that 687, not 688, should be the preferred year for those who hold to a second invasion.

3. Agreement of the Calendars of Jubilees and Sabbatical Years

This discussion of pre-exilic Sabbatical years was necessary to show that in those instances in which scholars have identified activities that would have been carried out in a Sabbatical year, in each case the year involved is compatible with the year of Ezekiel's Jubilee. Since every Jubilee year was also a Sabbatical year (the Jubilee being identical to the seventh Sabbatical year), a calendar of pre-exilic Sabbatical years can be constructed from Ezekiel's Jubilee and Josiah's Jubilee without any reference to the scriptural allusions to Sabbatical years in the times of Isaiah, Josiah, or Zedekiah, and also without any reference to the tradition that Jerusalem fell in a Sabbatical year. Similarly, the time of the Sabbatical years can be established from the tradition that Jerusalem fell in a Sabbatical year and from the scriptural allusions to Sabbatical years, without any reference to the Jubilees. But the two methods agree: Ezekiel's Jubilee and

Sabbatical year was fourteen years after the Sabbatical year that started in the fall of 588 B.C., during which (in the summer of 587) Jerusalem was destroyed by the Babylonians. The most firm, and best attested, of all these evidences for pre-exilic Sabbatical and Jubilee years is the Jubilee established by the Hebrew text of Ezek 40:1. Nevertheless, the rest of the evidences for their observance add their cumulative weight to the thesis that Israel's priests knew the times of the Jubilee and Sabbatical cycles, and they kept track of them all the time that Israel was in its land. In addition, the counting of these cycles must have started when Israel entered the land, as was commanded in Lev 25:1-10.³⁶ This is the only satisfactory explanation that has emerged to date of how the priests knew the times that the Jubilees and Sabbatical years were to be observed during the monarchic period, and how all the dates that can be ascertained for these events are in harmony with the start of counting in 1406 B.C., the date that the people of Israel entered the land of Canaan and began counting the years, as commanded in the book of Leviticus.

The calculation of the timing of the Jubilee and Sabbatical cycles is independent of the chronology of the kingdom period established by Thiele and other scholars who refined his dates, such as Siegfried Horn and Leslie McFall. Thiele, Horn, and McFall accepted 586 B.C. as the date of the fall of Jerusalem. This date is not compatible with any of the chronological data of Ezekiel related to Jerusalem's last days, a point that I have stressed at some length elsewhere because of its importance in showing that Jerusalem fell in 587

³⁶Rabbinic tradition, as embodied in the Talmud (*b. 'Arakin* 12b, 13a; *b. Kiddushin* 40b) is that counting of the Jubilee cycles and Sabbatical cycles was deferred until fourteen years after the entry into Canaan. This tradition was derived from *Seder 'Olam*, chap. 11. The *Seder 'Olam* is the acknowledged source of the chronological methods of the Talmud, and most of its chronological ideas were uncritically accepted as authoritative by the compilers of the Talmud. The reason for the fourteen-year delay in *Seder 'Olam*, chap. 11, is that Rabbi Yose (primary author of the *Seder 'Olam*) had the *idée fixe* that the total time that Israel spent in its land must come out to an exact number of Jubilee cycles. If that had been the case, then we should have expected that 587 B.C., when the exile began, would have been at the end of a Jubilee period. However, Rabbi Yose cited Ezek 40:1 as designating the time of the seventeenth Jubilee, and since he knew this was fourteen years after the city fell, he presumed that counting had been delayed for fourteen years so that he could account for the fourteen years between the fall of the city and the observance of the seventeenth Jubilee. He also mentioned the previous Jubilee, in the time of Josiah. As much as he would have liked to put these last two Jubilees fourteen years earlier in order to be consistent with his *idée fixe*, Rabbi Yose could not do it because he knew these were historical dates, not dates that came from his own calculation. Rabbi Yose's reasoning in this is altogether confused, starting as it does from a wrong presupposition. An adequate analysis of his treatment of pre-exilic Jubilee and Sabbatical years, and the difficulties that the genuine Jubilees in the days of Josiah and Ezekiel presented to him, has never been published. This is in spite of the fact that the chronological methods of the *Seder 'Olam* are the basis not only of the chronological systems of the Talmud, but also of the present *Anno Mundi* reckoning of the Jewish people.

B.C., not 586.³⁷ Therefore, the starting point for the calculation of Solomon's years, as determined from the Jubilee and Sabbatical cycles, is not in agreement with Thiele's date for the fall of Jerusalem. Neither Thiele's chronology nor the reign lengths of the MT were used in deriving Solomon's regnal years from the Jubilee cycles and Ezek 40:1, but the result reached agrees with both Thiele's chronology (for the northern kingdom, not the southern) and with the reign lengths upon which that chronology was built. The two methods are independent.³⁸

IV. *Third Verification: The Tyrian King List*

1. Overview of the Tyrian King List

Josephus, quoting a certain Menander of Ephesus,³⁹ gives a list of the kings of Tyre from the time of Hiram, contemporary of David and Solomon, down to Pygmalion, who is known from classical authors to have begun his reign in the latter part of the ninth century B.C. The anchor point at the bottom of the list is the seventh year of Pygmalion, the year in which Pygmalion's sister Dido left Tyre, after which she founded the city of Carthage. The events involving Pygmalion and Dido and the founding of Carthage are described by classical authors, and their narrations tie these events to the Roman calendar and the Greek Olympiads.

The problem of determining the original names and reign lengths of these kings has been a matter of considerable scholarly study. As would be expected from the difficulties of transmitting such a list of kings and regnal years over the centuries from the original writing until modern times, there is some variation in the names and individual reign lengths in the various copies of Josephus and those who quote Josephus (Eusebius, Syncellus, and Theophilus of Antioch). A thorough examination of the efforts made by scholars to interpret the reigns of the Tyrian kings was made by William H. Barnes, and it is his work that forms the basis for the present comments on the relevance of these Tyrian kings to the date of the beginning of the divided kingdom.⁴⁰

One of the names in the Tyrian king list has been verified from an Assyrian

³⁷See my detailed analysis of this issue in "When Did Jerusalem Fall?" *JETS* 47 (2004): 21-38, and "Ezekiel 40:1 As a Corrective," 267-270.

³⁸Of course, they are dependent in the sense that they are both built on the correct chronology of the time. This is the only adequate explanation yet offered for why the two methods agree.

³⁹*Against Apion* I.xvii-xviii/117-126.

⁴⁰William H. Barnes, *Studies in the Chronology of the Divided Monarchy of Israel* (Atlanta: Scholars Press, 1991). Barnes cites and gives credit to many scholars who preceded him in the analysis of the Tyrian king list. He particularly relies on the study of J. Liver, "The Chronology of Tyre at the Beginning of the First Millennium B.C.," *IEJ* 3 (1953): 113-120; and the article of his thesis advisor, Frank M. Cross Jr., "An Interpretation of the Nora Stone," *BASOR* 208 (1972): 17, n. 11. The dates of Cross and Barnes for Solomon's reign and the start of construction of the Temple are identical to Liver's.

inscription that records various kings who gave tribute to Shalmaneser III in that monarch's eighteenth year, 841 B.C. According to the work of J. Liver, E. Lipiński, Frank Cross, and Barnes,⁴¹ the name of the Tyrian king in Shalmaneser's list, *Ba'li-manzer*, is to be identified with *Balezeros* in the list of Menander/Josephus, a name separated by one other king (Mattenos) from Pygmalion, the last king listed by Menander/Josephus. Measuring back from the time of Pygmalion across the reign of Mattenos showed that Balezeros would have been on the throne in 841 B.C., the time of Shalmaneser's eighteenth year. Therefore the Tyrian king list is independently verified, for this late period at least, by an inscription from Assyria. The synchronism to Assyria also demonstrates that Josephus, following the Roman author Pompeius Trogus (first century B.C.), was summing the years so that they ended with the departure of Dido from Tyre in the seventh year of the reign of Pygmalion, 825 B.C., rather than ending them with the 814 date derived from other classical authors for the founding of Carthage. If Pygmalion's seventh year had been in 814 instead of 825, then Balezeros could not have reigned as early as 841. Consequently 825 must represent the date of Dido's departure from Tyre, and not, strictly speaking, the year when she founded Carthage. This much seems indicated in the expression that Menander/Josephus used, saying that "It was in the seventh year of [Pygmalion's] reign that his sister took flight, and built the city of Carthage in Libya."⁴²

2. Redundancy of the Account

Not all scholars, however, have been willing to accept the chronology given by the Tyrian king list. Those who hesitate to accept it can point out that the sum of the reigns of the kings from Hiram through Pygmalion varies somewhat among the various copies of Josephus, and in no case does it add up to the 155 years that Josephus gives for the total from the accession of Hiram, contemporary of David and Solomon, until the seventh year of Pygmalion. The various spellings of the names and the slightly varying reign lengths of the individual kings, as found in the extant MSS of Josephus (and also in Eusebius, Syncellus, and Theophilus), are all to be expected. These are discussed by Barnes, but this is not the relevant issue as far as the larger chronological issue

⁴¹Liver, 119; E. Lipiński, "Ba 'li-Ma'zer II and the Chronology of Tyre," *Rivista degli studi orientali* (RSO) 45 (1970): 59-65, cited in Barnes, 46; Cross, 17, n. 11; Barnes, 46-48.

⁴²*Against Apion* I.xviii/125 (Thackeray, LCL). Barnes, 51-52, clarifies that the seventh year of Pygmalion should be understood as referring specifically to the year of Dido's departure from Tyre. He writes that the text of Menander that Josephus was following "probably stated only that Elissa (also known as Dido) fled Tyre in the seventh year of Pygmalion's reign, not that she founded Carthage in that year. Nevertheless, Josephus himself, probably relying on Pompeius Trogus, did specifically date the founding of Carthage to the same year as Elissa's departure from Tyre, i.e. the seventh year of Pygmalion, or 825 B.C.E." Barnes is following here J. M. Peñuela, "La Inscripción Asiria IM 55644 y la Cronología de los reyes de Tiro," *Sefarad* 14 (1954): 28-29 and nn. 164-167. Pompeius Trogus dated the founding of Carthage or Dido's flight to seventy-two years before the founding of Rome (753 B.C.).

is concerned. The important issue is the overall number of years. In this, Barnes expresses some surprise that virtually all MSS agree:

It should be emphasized that this exact figure of "155 years and 8 months" from the accession of Hiram (*Eirōmos*) to the founding of Carthage is attested in virtually all of the textual witnesses (in Syn[cellus] it is not explicit, but see below; Eus ex gr alone reads "155 years and 18 months,"⁴³ cf. above, note i). This textual unanimity is all the more striking when one considers that none of the regnal figures as now extant in the various texts add up to this figure (all except Eus Arm fall short.)⁴⁴

The unanimity of these sources regarding the total years from Hiram to Dido's flight is a natural consequence of the redundancy in Josephus's account. Redundancy is used by information engineers (and authors!) to guarantee the correct transmission of a text or of any other information. When there is only one datum to be transmitted for a given item, then the presence of "noise" during the transmission can cause that datum to be lost or distorted. But if a piece of information is sent multiple times, and especially if it is expressed in more than one way, then the likelihood of correct transmission is greatly enhanced. In the case of transmission of ancient texts, "noise" can arise from the errors or deliberate changes of copyists, as well as from a poorly preserved text from which the copy was made.

The text of Josephus for the Tyrian kings has redundancy, and this is what has preserved the all-important totality of years from the corruption of copyists' errors. In the following quotes from the *Against Apion* passage, I have italicized the redundant words:

For very many years past the people of Tyre have kept public records, compiled and very carefully preserved by the state, of the memorable events in their internal history and in their relations with foreign nations. It is there recorded that the Temple at Jerusalem was built by King Solomon *143 years and eight months before the foundation of Carthage by the Tyrians.*

After this citation from the Tyrian records, Josephus introduces Menander of Ephesus, and cites the list of kings derived from him. He quotes Menander as follows: "It was in the seventh year of [Pygmalion's] reign that his sister took flight, and built the city of Carthage in Libya." After this quotation, Josephus continues in his own words:

The whole period from the accession of Hirom to the foundation of Carthage thus amounts to *155 years and eight months*; and since the temple at Jerusalem was built *in the twelfth year of King Hirom's reign, 143 years and eight months elapsed between the erection of the temple and the foundation of Carthage.*⁴⁵

⁴³This cannot be original. If this were the correct total, it would have been written as 156 years and six months. The original reading must have been 155 years and eight months, consistent with all other manuscripts.

⁴⁴Barnes, 44.

⁴⁵Josephus, *Against Apion* I:xvii-xviii/107-126 (Thackeray, LCL). "Hirom" transliterates the form of Hiram's name that appears in the Greek text of Josephus.

The redundancy in these passages is what prevented the corruption of the total years during the transmission of these texts over the centuries. The redundancy extends to more than just the repetition of the figure of 143 years and eight months for the time from the start of construction of Solomon's Temple until Dido left Tyre. The 143 years is in agreement with the 155 years assigned for this time from Hiram's accession until Dido's departure, minus the twelve years from Hiram's accession until the building of the Temple. Not only is there repetition of the 143 years, but the other two numbers express the same total by their difference. The whole passage in Josephus must be viewed in light of this fortuitous multiple redundancy. If it had not been constructed this way and we had only one number for the time between the construction of the Temple and the seventh year of Pygmalion, then we would have as much uncertainty about this figure as we do for some of the individual lengths of reign.

It could be argued that although the redundancy in Josephus's writing has preserved correctly the total years for the Tyrian kings, this redundancy applies only to what is preserved in the writings of Josephus, not to what he received from Menander or the Tyrian court records. According to Christine Tetley, whose chronology is contradicted by the Tyrian King List, the list was corrupted between the time it was recorded by Menander or the official Tyrian record-keepers and the time it was cited by Josephus some hundreds of years later.⁴⁶ If this were true, then the redundancy that has preserved correctly the total of years from Hiram to Pygmalion would only be a redundancy that preserved the figures that Josephus had before him, but these figures were corrupted (according to Tetley) before they got to Josephus.

This is not likely. Redundancy, thus guaranteeing accuracy, must also be attributed to the figures that Josephus used when he wrote *Against Apion*. The redundancy here is of a slightly different sort, but in its way it is fully as effective as the various cross-checks—the 155 years, the twelve years, and the 143 years—that have been preserved in Josephus's writings. Josephus (*Against Apion* I.xvii/108) cited the records of the Tyrians as showing that 143 years and eight months passed between the start of construction of Solomon's Temple and the founding of Carthage (i.e., Dido's flight). According to Josephus, such records were still extant when he wrote. After this citation of the Tyrian records, Josephus went on to cite Menander, giving the reign lengths of the various Tyrian kings for this span of time. Menander's lengths of reign must have added up to the total given in the Tyrian records when Josephus copied them, although these individual numbers, as mentioned above, were prone to later corruption in the copies of Josephus that have come down to us. But when Josephus had his copy of Menander before him, there must have been agreement, and redundancy, between the individual reign lengths given by Menander and the overall sum that was given in the Tyrian records, and

⁴⁶M. Christine Tetley, *The Reconstructed Chronology of the Divided Kingdom* (Winona Lake: Eisenbrauns, 2005), 171. See my review of Tetley's work on 278ff. of this issue of *AUSS*.

probably also between Menander's individual reign lengths and his sum of years. Redundancy therefore preserved the correct totals until Josephus could examine them. After Josephus transcribed these numbers, his multiple ways of specifying the total number of years provided a second framework of redundancy, one which preserved this total down to our time.

3. Other Criticisms of the Tyrian King List

One reviewer of Barnes's treatment of the Tyrian king list comments that "[t]he chronological calculations for the founding date of the temple in relation to the founding of Carthage come from Josephus, who lived in the first century C.E. and who used the Bible as a reliable source for ancient Judahite chronology, taking its statements at face value."⁴⁷ The reviewer goes on to further express her disdain for both Josephus and the Scripture as sources for historical information, but the only substantive criticisms of the Tyrian king list are her comments that there were two dates given by classical authors for the founding of Carthage, and that the list would necessarily have developed copyists' errors through transmission over time. Both these concerns were dealt with at length in the preceding section. Such negative comments about the Bible and Josephus, however, do remind us to check our sources and consider whether there might have been any reason to doubt the veracity of these accounts. For the scriptural account, the only bits of information used in constructing a chronology from the Tyrian king list are that the Temple was built in Solomon's fourth year, and that Solomon ruled forty years. Although minimalists may challenge whether the First Temple ever existed or whether there was a king named Solomon, this is hardly the approach of rational scholarship. Neither does there seem to be any cogent reason for disbelieving the Bible's statements that Solomon reigned forty years and Temple construction began in his fourth year of reign. Turning to the credibility of the information from Josephus, we can ask if there was any reason for Josephus to falsify the Tyrian data. Was there a historian named Menander, and did he write about the Tyrian kings? If not, Josephus would have been making a claim that would be seen as false by any learned person in his day, and this was just the audience for whom he was writing. Granted then that the writings of Menander were known, would Josephus have quoted them wrongly? Again, he would have lost his credibility by so doing, and what possible motive could he have for it? Would he claim that the Tyrian records were in existence in his own day for anyone to examine if that were not so? It is not enough to just express disbelief in these matters; the proper method of criticism must be to explain how Josephus (and the Bible) could have falsified the relevant data, and give the motives for their doing so.⁴⁸

⁴⁷Diana Edelman, review of Barnes in *JNES* 54 (1995): 158.

⁴⁸A contrast to the above-mentioned reviewer's skepticism of Josephus's citations of Menander and Dios (another Hellenistic historian) regarding the Tyrian kings is given in H. Jacob Katzenstein, *The History of Tyre* (Jerusalem: Goldberg's Press, 1973) 79-80.

One scholar who usually does not start with the unproven presuppositions of radical scholarship, but instead builds his historical interpretations on the sound findings of archaeology, is Kenneth Kitchen. In his field of specialty (Egyptology) there are few scholars who have such an in-depth knowledge of ancient customs and practices. We then might expect a fair criticism of the Tyrian king list from this outstanding scholar. In his review of Barnes's book, Kitchen wrote the following regarding the Tyrian king list:

It is worth pointing out here that the Tyrian list is known only in imperfect copies via Josephus almost a millennium after its span (c. 980-800 BC globally), in Greek, in an indifferent textual tradition and subject to two rival dates for the founding of Carthage (814 or 825 BC). This is a very poor starting-point to presume to adjust the far more detailed, far longer, better-connected, and basically more reliable chronological schema in Kings, transmitted in its own language. Barnes (largely relying on Cross as mentor) opts for 825 BC for Carthage's founding—which has at least a 50% chance of being correct, and may be.⁴⁹

The concern about "imperfect copies" that came to Josephus "almost a millennium after its span" was considered in the preceding section, where it was shown that these concerns were irrelevant because what is important is the redundancy that guaranteed that the correct overall length of time would be preserved. Josephus's redundancy, in turn, explains the otherwise amazing fact that virtually all extant copies of Josephus, Eusebius, Syncellus, and Theophilus agree on the number of years from Hiram and Solomon to the flight of Dido. It is also not important that Josephus and Menander wrote in Greek, therefore raising questions about the form of the names of the individual kings; all that is important for the overall span of time is that the famous names of Solomon, Hiram, Pygmalion, and Dido can be recognized. Regarding the "50% chance" for which date to use for the founding of Carthage, Barnes, as quoted above, showed quite convincingly that it was the earlier date, the date of Dido's departure from Tyre, that was intended by Menander, and this has been confirmed by the tribute of Balezeros to Shalmaneser III. In vindication of Liver, Cross, Barnes, and the other scholars who worked with the data of the Tyrian king list, it must be said that all of Kitchen's concerns have been fairly met, and that neither Kitchen nor any other reviewer has provided an adequate reason to reject the usefulness of this list for determining the date of the

Katzenstein writes, "Dius calls Solomon 'the sovereign of Jerusalem' (ὁ τύραννος Ἱεροσολύμων) while Menander refers to him as 'the king of Jerusalem' (ὁ Ἱεροσολύμων βασιλεύς). This appellation is clear proof of the Tyrian source of these passages, for the kings of the Phoenician coast, who ruled principally over one city, looked upon Solomon as a monarch of a city, like themselves; nor did Josephus correct this 'flaw', even in an account where he endeavors to exalt the greatness of Solomon. Great weight must be attached to the testimony of Dius and Menander as cited by Josephus, for these are the only mentions of Solomon's name in a foreign source—perhaps a Tyrian source that stems from the time of Solomon himself"

⁴⁹Kenneth Kitchen, review in *EvQ* 65 (1993): 249.

founding of Solomon's Temple. It is curious that Kitchen is so half-hearted in support of the Tyrian king list when its chronology agrees with the dates that he accepts for Solomon (NBD 219; *On the Reliability*, 83).

4. Chronology of the Tyrian King List

Dating Dido's flight in 825 B.C., Barnes adds the 143 years (and eight months;⁵⁰) and derives 968 for the beginning of Solomon's Temple. He concludes:

Some adjustment of the regnal totals (or, less likely, of the names) of the Tyrian kings may be required as further evidence comes to light (especially from Mesopotamia), but for the present we may conclude quite confidently that the Tyrian king list of Menander as preserved in Josephus' *Contra Apionem*, 1:117-26, coupled with the dated reference in Shalmaneser's annals to the Tyrian king *Bd'li-manzer* and the date of Pompeius Trogus for the founding of Carthage, provide a firm external synchronism for biblical chronology, and particularly for the dating of the founding of Solomon's temple in 968 (the twelfth year of Hiram of Tyre), as well as the dating of Solomon's accession to 971. A variation of a year or two is possible, of course, especially in the light of our ignorance of Phoenician dating practices,⁵¹ but I seriously doubt that an error of more than two years either way is likely. Reckoning the date of the disruption of the United Monarchy is more problematic: Solomon's biblical 40 year reign is probably a round number (although unlikely to be far off from the exact figure); therefore the

⁵⁰The odd eight months represent the short reign of Phelles, who was four kings before Pygmalion. Josephus (and perhaps Menander) exhibits a certain ineptitude in handling these eight months. When doing the summation, they should either be reckoned as a whole year, or they should not enter into the total. When we are told that Zimri reigned over Israel for seven days, and Zechariah and Shallum for six months and one month respectively, that does not mean that the total of years for all kings of Israel was so many years plus seven months and seven days. The Tyrian king list is constructed in the same way that is seen in the lengths of reign of the kings of Judah and Israel, in that the king is given a full year when his reign crossed a new-year boundary. The only cases where a finer division of time is given is when the king ruled less than one year. Liver, 118, n. 16, is of the opinion that the eight months of Phelles "are included in the last year of his predecessor and the first year of his successor, and we do not need to count them again in the total."

⁵¹For the Phoenicians, we would face the same chronological questions that Coucke and Thiele had to face when constructing the chronology of the kings of Israel, such as when they started the regnal year. This by itself, if we knew the answer for Tyre, could make a difference of one year when trying to be more exact in tying Tyrian chronology to the reign of Solomon. It is also not certain which calendar Pompeius Trogus was using in dating Dido's flight to seventy-two years prior to the founding of Rome. A final slight uncertainty of one year is the statement in *Ant.* VIII.iii.1/62 that Temple construction began in the eleventh year of Hiram, not twelfth as in *Against Apion*. The figure in *Against Apion* is probably to be preferred, because this was written later than the passage in *Antiquities*, and it has the advantage of the redundancy (the difference of 155 years and 143 years).

date of 932 (assuming ante-dating practice) should be reasonably accurate, . . . At this juncture, it is sufficient to emphasize the following fact: extant extra-biblical sources point with a high degree of precision to the year 968 as the date of the founding of the Solomonic temple, and any future reconstruction of the biblical chronology of the Divided Monarchy must reckon seriously with this datum.⁵²

Barnes is using B.C. years here, and he is deliberately not entering into a discussion of the month in which the regnal year started, either for Solomon or for Hiram. With these necessary inexactitudes in mind, he believes that the Tyrian data allow 932 B.C. to be specified for the start of the divided monarchies, within a possible error of only one or two years. My own research on the date of Solomon's death arrived at the Judean year beginning in Tishri of 932 B.C.⁵³ The biblical data, whether or not someone wants to accept them, allow this degree of precision. Their agreement with the Tyrian data can only strengthen the case for the accuracy of both sets of data—the years of Hebrew kings as interpreted by Thiele, and the years of Tyrian kings as given by Menander and Josephus.⁵⁴

Are these two traditions independent? Throughout the writings of Josephus, he shows that his chronological information and methods were not capable of determining the correct span of time over a period as long as this unless he had some independent and reliable source such as the Tyrian king list. He certainly could not have figured out the years from Pygmalion to Solomon by adding the years of the Judean kings or the Israelite kings. Josephus did not relate the flight of Dido to the reign of a Hebrew king, and so the Tyrian king list is not tied to Hebrew chronology at its lower end; instead, it is tied to Roman and Greek calendars by the classical authors. There is no correlation of this list with the chronological data of the Scriptures except the connection to Solomon at the upper end. The Tyrian data are therefore an independent witness to the dates of Solomon, and scholars such as Liver, Peñuela, Cross,

⁵²Barnes, 54-55. Barnes's dates for the founding of the Temple and for Solomon's regnal years follow Liver, 120, and Cross, 17, n. 11.

⁵³Young, "Solomon," 589-603. I was not aware of the evidence from the Tyrian king list when I wrote this article.

⁵⁴It apparently has not been noticed that the Tyrian king list, as transmitted by Josephus, demonstrates that the court records of Tyre measured the reigns of kings in an accession sense, the same as was the practice for the first kings of Judah. If the years had been by nonaccession reckoning, then Menander/Josephus would have made a subtraction of one year from the sum of reign lengths for each king in the list. Since a simple sum was assumed, with no allowance for such a subtraction, accession years must have been used in the Tyrian records. All chronologists should take into account this additional evidence in favor of accession years for the first kings of Judah, just as they should take into account the data for the reigns of Nadab and Baasha, mentioned earlier, that show that Israel at this time was using nonaccession reckoning. If we are too enamored of our own theories we will miss valuable clues like this that indicate how the ancient scribes kept their records.

and Barnes have given credence to the trustworthiness of Solomon's dates that can be derived from Thiele's date for the division of the kingdom. None of these scholars had set out to verify Thiele's date for the beginning of the divided monarchy; Barnes has his own chronology in which he makes various assumptions that conflict both with the biblical data and with Thiele's interpretation of those data. Even though Barnes does not wholeheartedly endorse Thiele's methodology, Barnes's study of the Tyrian king list is a vindication of Thiele's work, especially with regard to Thiele's establishing the date of the beginning of the divided monarchy as the year beginning in Nisan of 931 B.C.

V. Strengths and Weaknesses of the Three Methods

The strengths and weaknesses of the three ways of arriving at the date of the division of the kingdom may be summarized as follows, working in reverse order from the above presentation.

- The strong point of the Tyrian king list is the redundancy that guaranteed the preservation of the 155 years from Hiram's accession and the 143 years from his twelfth year to the time of Dido's flight. One weakness, as mentioned above, is the uncertainty of when the calendar year started for the kings of Tyre or how that matched the calendar (probably Roman) that Pompeius Trogus used in measuring seventy-two years between Dido's flight and the founding of Rome. The date of the founding of Rome is itself somewhat uncertain, but it seems probable that Pompeius Trogus was using the date given by Varro (116-27 B.C.), which was April 21, 753 B.C. Finegan writes: "From the middle of the first century B.C. onward, the era based on Varro's date (and hence known as the Varronian era) was the most widely accepted reckoning and that used by the chief Roman writers."⁵⁵ Because of the uncertainties mentioned, the chronology of the Tyrian king list is less precise than the other two ways of determining the date of the division of the monarchy. Nevertheless, the interpretation of Liver, Cross, Barnes, and the writers cited by them seems to be the most reasonable interpretation of the relevant data, and the list of Tyrian kings is a credible means of establishing Solomon's dates and hence the date for the division of the kingdom.
- The strong point of the method of Jubilees and Sabbatical cycles in determining the date of the division of the kingdom is the redundancy of all the information that allows the construction of the calendar of pre-exilic Sabbatical and Jubilee years. One part of this redundancy is the exegesis of the pertinent scriptural texts (including Ezek 40:1 that establishes the time of the last Jubilee) and their general agreement on the evidence of pre-exilic Sabbatical and Jubilee years. A second part of the redundancy is the consistency of the traditions related to Ezekiel's Jubilee, Josiah's Jubilee, and the fall of Jerusalem in a Sabbatical year. Binding these together like cement

⁵⁵Finegan, 99.

is the agreement of both tradition and exegesis of scriptural texts with the rhythmic repetition of the Sabbatical years, a rhythm that late-date editors could not have invented. The methods of calculation from after the exile could not even correctly calculate the forty-nine years back from Ezekiel's Jubilee to the Jubilee in Josiah's eighteenth year, much less project these cycles accurately back to the Sabbatical year in Isaiah's day or to the entry of the people into Canaan that started the counting for the cycles. The other strong point for this method is its precision: it allows the final year of Solomon to be precisely dated to 932t, as discussed above. The weak points might be listed as (1) it depends on the authenticity of the 480-year figure of 1 Kgs 6:1, which many scholars have rejected for one or another unjustified reason, and (2) it relies somewhat, although not entirely, on the tradition that Ezekiel's Jubilee was the seventeenth Jubilee, whereas the number of this Jubilee is not given in Scripture. Regarding item (1), the fact that accepting the 480 years of 1 Kgs 6:1 as authentic gives agreement with the other two methods of calculating the time of the division of the kingdom should be sufficient for impartial scholars to accept that the 480 years are historically correct. Scholars who do not think it is authentic need to explain how the date of entry into Canaan that can be deduced from it just happens to be an exact number of Jubilee cycles before Ezekiel's Jubilee. Regarding item (2), the argument was given in my previous writing that if the priests in Ezekiel's day knew which year it was in a Sabbatical cycle, and which Sabbatical cycle it was in a Jubilee cycle (both of which they manifestly did know), then they likely would also have known which Jubilee it was, since the Jubilee and Sabbatical cycles were used in ancient times, and even down to the medieval period, as a long-term calendar.⁵⁶ These two "weaknesses" are therefore entirely reasonable assumptions. They are in harmony with the other evidences that the timing of the Sabbatical and Jubilee years was known all the time that Israel was in its land. The various data regarding the Jubilee and Sabbatical years agree with the calendar of such years that can be constructed simply from giving the proper date of Ezekiel's vision in Ezek 40:1. How this agreement has come about has not yet been adequately explained except by the thesis that the priests were counting the cycles ever since the entry into the land in 1406 B.C., as they were commanded to do in Lev 25:1-10.

- The strong points of Thiele's method of arriving at 931n for the start of the divided monarchies have been discussed at length in Section II above. These are (1) the agreement of the methods of reckoning years assumed by Thiele with ancient practice, and (2) the fact that Thiele's method of arriving at this date makes sense of all the biblical texts involved, with no need of emendations or the major unwarranted assumptions (such as no coregencies) used by Thiele's critics. The only weaknesses of Thiele's approach were pointed out as his (minor) unwarranted assumption that Rehoboam began to reign in the latter half of 931n, and his lack of a precise notation.

⁵⁶Young, "Talmud's Two Jubilees," 78-80.

The three methods agree: the first year of the divided monarchy was the year that began in Nisan of 931 B.C., i.e., 931n in the Nisan/Tishri notation. The demonstrated fact that these three methods are fundamentally independent, yet agree with such precision, means that all three methods are basically sound. The work of Edwin Thiele in establishing this date (in point of time the first method published) must then be recognized as one of the most significant contributions ever made in understanding and explaining a difficult biblical topic. The corroboration of this date, as derived from the regnal data of Kings and Chronicles, by two other independent methods has repercussions in the fields of redaction history, historical accuracy of biblical dates, the question of LXX or MT priority in the books of Kings, and questions regarding the date of the exodus. If a revolution in thinking is needed in some of these areas because of this manifest success of Thiele in interpreting the chronological texts of Scripture, then so be it.